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# STATE WATER RESOURCES CONTROL BOARD

Bayview-Hunters Point	)	
Community Advocates,	)	
Communities for a	)	
Better Environment,	)	
	)	Petition for Review of
Petitioners,	)	Inaction by a Regional Board
	)	
Regional Water Quality Control	)	
Board-San Francisco Region,	)	
	)	Water Code § 13160; 13320
Respondent	)	23 CCR 2050; 23 CCR 2052
	)	
	)	

## INTRODUCTION

Petitioners Bayview-Hunters Point Community Advocates and Communities for a Better Environment (“Petitioners”) formally request the State Board to review the failure of the Regional Water Quality Control Board-San Francisco Region on a timely basis to either grant or reject a renewal of the National Pollution Discharge Elimination System (NPDES) water quality permit No. CA 0005687 for the Potrero power plant in Southeast San Francisco. The last permit for this facility was issued on May 18, 1994 and expired on May 18, 1999. The owner, Mirant Corporation, most recently filed an application for renewal of the permit on November 17, 2003.

The Regional Board issued a tentative order to renew the permit on January 28, 2005, but as of this date has not issued or denied a renewal permit for this facility.

The Regional Board pulled its previous draft permit, release for review in 2004, after petitioners and other commenters noted that the Regional Board staff had failed to review available entrainment data showing the damage that would result from the once-through cooling system continuing to operate under the new permit. Subsequent review of that data by the Regional Board's own expert confirmed that the once-through cooling system would impact aquatic life equivalent to impairing approximately 300-900 acres of Bay habitat. Petitioners in their comments requested that the Board implement its Discharge Prohibition 1 and the State Thermal Plan by requiring Mirant to develop a plan to phase out once through cooling to avoid toxic, thermal impacts and install the best available technology now to reduce entrainment.

On December 6, 2005, after Regional Board staff failed to agree to hold a hearing on a permit during a so-called "stakeholder meeting" convened by the City of San Francisco, Petitioners by letter attached hereto as Exhibit A1, submitted to the Regional Board a request that the Board schedule a hearing on a permit renewal. Sixty days later, the Regional Board had not acted.

Petitioners note that a new draft permit has been issued for a May hearing. As draft permits have been issued before, only to be withdrawn, Petitioners, to protect their right for review by the State Board, hereby file this Petition. Petitioners in a letter accompanying this Petition have asked the Board to hold this Petition in abeyance to determine if the Regional Board will complete its hearing in May.

Because there has not been a draft permit issued and petitioners have no assurances that the permit will be issued at the scheduled Regional Board meeting in May 2006, pursuant to 23

CCR 2050.5(c), Petitioners request that, if and when this Petition is no longer held in abeyance, the State Board grant this petition.

## PETITION ALLEGATIONS

Petitioners, in accordance with 23 CCR 2050, allege the following:

### **1. Name and Address of the Petitioners:**

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Attn: Karen Pierce  
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San Francisco, California 94124  
(415) 671-2862  
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Communities for a Better Environment  
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Oakland, CA 94612  
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### **2. The specific action or inaction of the regional board which the state board is requested to review**

Petitioners request review of the Regional Water Quality Control Board, San Francisco Region's ("Regional Board") failure to determine whether Mirant Corporation is entitled to renew NPDES Permit No. CA 0005687 and otherwise continue to discharge cooling, storm and other waste water from its Potrero facility. This permit, for the Potrero Power Plant in Southeast San Francisco, expired on May 18, 1999. The most recent application for renewal was submitted on November 17, 2003. Petitioners requested action on December 6, 2005. An order or resolution from the Regional Board has not been included because this is a petition for review of the Regional Board's failure to act.

**3. The date on which the regional board acted or refused to act or on which the regional board was requested to act.**

The date on which the Regional Board was requested to act was by letter mailed on December 6, 2005. A copy of the letter from petitioners to the Regional Board requesting action is attached as Exhibit A1.

**4. A full and complete statement of the reasons the action or failure to act was inappropriate or improper.**

Federal and state law require NPDES permits to be issued or denied at least every five years.<sup>1</sup> New rules under EPA's 316(b) Phase II cooling water regulatory scheme do not alter these requirements. While they require studies for a permit renewal, they do not provide authority to delay permit renewal in the absence of those studies. For a limited period the Phase II regulations do, however, allow permits to be issued without complete studies so long as the permit writers require the best technology available. These regulations also allow states to implement more stringent permit requirements. California law has more stringent permit requirements that must be implemented.

The Regional Board has not met these federal and state requirements for timely review resulting in either renewal or denial of this permit that was last reissued in 1994. The Regional Board's failure to renew or deny this permit improperly allows harm to the Bay and those who use or enjoy the Bay.

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<sup>1</sup> For a more comprehensive discussion of this point, please see Petitioners' accompanying Memorandum of Points and Authorities, which Petitioners have filed with, and incorporated by reference into this Petition.

Regional Board staff has long acknowledged a general concern that once through cooling is not appropriate at the Potrero site because of its environmental effects. Regional Board staff circulated a 2001 tentative order that acknowledged that Basin Plan Discharge Prohibition 1 prohibits discharges from both the existing Unit 3 outfall as well as a separate outfall for a proposed Unit 7 plant. Discharge Prohibition 1 prohibits discharge of wastewater with pollutants of concern in shallow water or where it does not achieve a minimum of 10:1 dilution. Further, in 2002 the Regional Board's Executive Officer, in a letter to the California Energy Commission (CEC) regarding CEC review of proposed Potrero Unit 7, concurred with other agencies that Unit 7 must use an alternative to once-through cooling because of the adverse impacts of once-through cooling. In 2003 the National Marine Fisheries Service (NMFS) suggested requiring a similar cooling alternative for the existing Potrero plant in the next permit review, in order to address a similar combination of impacts. Despite this evidence, the Regional Board has not acted to protect San Francisco Bay from these impacts.

The Regional Board's failure to review and reissue or deny this permit results in failure to apply a combination of requirements that address multiple adverse impacts and would lead to a readily available solution that could protect the Bay now. There is ample site-specific evidence to conclude that:

- Significant impacts of the cooling intake trigger requirements under Clean Water Act section 316(b) to minimize intake impacts, and a cooling tower is an available option to meet these requirements;
- Thermal impacts threaten specific beneficial uses because the shoreline discharge fails to achieve dispersion through the vertical water column instead of at the surface or in shallow water, triggering a need to comply with Thermal Plan General Water Quality Provision 1 by removing the discharge from the shoreline;
- The shallow water discharge has toxic and other pollutant characteristics of concern and fails to achieve a minimum initial dilution of at least 10:1, triggering a requirement to remove the discharge from the shoreline under Basin Plan Prohibition 1;

- Replacement of the old once-through cooling system with a cooling tower can minimize intake impacts as required by 316(b) and also meet Thermal Plan and Basin Plan requirements to remove the discharge from the shoreline; and
- Potrero could not opt for replacing its current outfall with a discharge diffuser to address the Basin Plan and Thermal Plan violations rather than using a non-Bay cooling option, because as BCDC already found, installing such a diffuser would result in unnecessary Bay fill, in violation of the McAteer-Petris Act.

Thus, replacement of the existing cooling system with a system that does not use Bay water is an available option for compliance with the requirements triggered by significant ongoing impacts, and other options for compliance—short of plant closure—are not available. Therefore, as the only option that does not violate any applicable law, non-Bay cooling is the best technology available to minimize intake impacts. Despite its past proposal to prohibit shoreline discharge, its agreement that impacts are significant and its concurrence with other agencies that a diffuser is inappropriate where, as here, a cooling tower or dry cooling system is an available alternative to Bay fill, the Regional Board failed to issue a permit that requires non-Bay cooling or any other conditions. This failure allows significant, unnecessary, ongoing impacts on the Bay.

Moreover, in its failure to review and reissue or deny this permit, the Regional Board failed to act on substantial relevant and readily available evidence. Evidence reported to government agencies by PG&E and Mirant shows that Potrero discharge E-001 contacts bottom sediment and the shoreline near the shoreline outfall. This evidence indicates that the discharge receives little or no initial dilution in the receiving water. Petitioners found this evidence in Regional Board files. Petitioners submitted calculations to the Regional Board, based on concurrent measurements of temperature in the effluent and the Bay by PG&E, that indicate the discharge receives initial dilution no higher than approximately 1:1 and as low as zero. Despite its staff's 2001 proposal for this permit to apply Basin Plan Prohibition 1, which prohibits

discharges with characteristics of concern that receive less than a minimum of 10:1 initial dilution, the Regional Board has not acted on this evidence.

The Regional Board staff found in its 2004 TO that toxic pollutants in effluent E-001 have a reasonable potential to cause or contribute to violations of water quality standards as a result of the discharge, and that chronic toxicity is observed in the effluent. Petitioners found evidence in Regional Board files that sources of toxic pollutant discharge include corrosion of the cooling system condenser, runoff from contaminated areas that enters the effluent, and remobilization of pollutants from sediment, and may include chlorine and heat shock treatments. Significantly, there is evidence the antiquated design of the shoreline outfall and intake contributes to the discharge of toxic pollutants.

On January 28, 2005 Petitioners submitted evidence to the Regional Board showing that the locations of shoreline discharge E-001 and cooling intake I-001 result in the remobilization of sediment contamination from the facility that then enters the cooling intake and discharges from the outfall. Further, petitioners' preliminary estimate suggested that mass discharges of some toxic pollutants might approach or exceed the maximum discharges allowed by interim effluent limits that are applicable to the largest petroleum refinery discharging to the Bay.

Despite its staff's prior proposal to apply Basin Plan Prohibition 1, which applies to discharges with characteristics of concern, the Regional Board has not acted on this substantial evidence that the discharge has characteristics of concern. The staff also inappropriately rejected heat as a pollutant of concern, contending that the Thermal Plan preempted Discharge Prohibition 1. The staff ignored that the Thermal Plan regulates routine discharges, while Discharge Prohibition applies also to an upset, which would be catastrophic to aquatic life if it spewed heated water into a shallow area.

Evidence reported by Mirant to the CEC shows that discharge E-001 causes elevated temperature in an extensive area at the Bay's surface including the shoreline near the outfall. CEC staff and Mirant's consultant concluded that the thermal discharge is linked to noticeable changes in aquatic plant communities near the discharge. Mirant's consultant identified impacts on animal communities near the discharge and predicted that these impacts would be reversed by abandonment of the shoreline outfall. PG&E identified evidence that the thermal discharge may adversely impact herring egg incubation and larval hatching size in the vicinity of the discharge. The Department of Fish and Game (DFG) identified this area near the discharge as a uniquely important part of the Bay for deposition and hatching of herring eggs. Petitioners found this evidence that the thermal discharge threatens estuarine habitat, fish spawning and commercial fishing in Regional Board files. The Regional Board has failed to act on this evidence.

PG&E documented entrainment and impingement by the existing Potrero Unit 3 intake as early as 1979. Mirant sponsored studies in 2001 that document massive entrainment and show that many of the same species impinged in the PG&E study were near the intake and remained subject to impingement. In 2002 the Regional Board staff concurred with findings by other agencies that the combined entrainment and impingement impact from a proposed new plant that would draw the same water volume as the existing plant from the same location would be significant. In 2003 the NMFS found entrainment and impingement by the existing plant cause a cumulative impact and recommended replacing the Unit 3 cooling system with a cooling tower.

The Regional Board acted only after Petitioners provided this evidence in comments on its 2004 TO, and then only by seeking further study. In 2005 Regional Board staff requested that Mirant submit a report on its 2001 entrainment study. Mirant's report concluded that an estimated 297,000,000 larval fish are entrained and killed annually. A Regional Board consultant



then reviewed the Mirant report and concluded that the entrainment impacts are significant, equivalent to the loss of approximately 300-900 acres of Bay habitat. The Regional Board then sought more studies in a letter to Mirant dated December 21, 2005. It has not otherwise acted on this evidence. Nor has it required improved cooling water technology of any kind in its new tentative order released recently in February of this year.

Direct impacts from the entrainment of eggs and larvae in the plant combine with impacts from the impingement of juveniles, the discharge of heat and toxic pollutants, and the reduction in food availability for some species caused by the removal of plankton from the food web. In one important example, NMFS concluded in 2003 that thermal impacts on larval herring that hatch from eggs deposited near the plant could increase the number of herring entrained. The CEC staff, NMFS, DFG and others found evidence suggesting that the combined impact of the Potrero intake and discharge is significant. Petitioners provided this evidence to the Regional Board. The Regional Board has not acted on this evidence.

In February 2002 the CEC staff concluded that a cooling tower for proposed new Potrero Unit 7 is technically and economically feasible and could fit into the Potrero site along with the proposed Unit 7. On May 1, 2002 Regional Board staff concurred in this CEC staff conclusion. In July 2003 Mirant proposed a cooling tower to replace its proposed once-through cooling system for proposed Unit 7, and NMFS recommended a cooling tower for Unit 3. On January 10, 2005 Petitioners provided this evidence to the Regional Board along with evidence that a similarly sized cooling tower could replace the existing cooling system. The Regional Board has failed to act on this evidence of an available solution to stop impacts its staff admits are significant and adverse.

On March 21, 2002 the Bay Conservation and Development Commission (BCDC) found that Mirant's proposal to construct diffusers in the Bay at Potrero as part of its proposed Unit 7 project would be contrary to the McAteer-Petris Act prohibition against unnecessary Bay fill. Mirant had proposed diffusers for existing Unit 3 as well as proposed new Unit 7, in part because of shoreline discharge impacts and in part because of shoreline space limitations. BCDC found that the Bay fill that would be caused by constructing the diffusers is prohibited where, as here, a cooling tower or dry cooling, a technology that avoids all air and water quality impacts, is an available upland alternative to the fill.

Petitioners provided BCDC's report to the CEC on its March 2002 decision to the Regional Board, and explained why this evidence is relevant to the determination of the best technology available (BTA) for minimizing entrainment and impingement impacts caused by the plant. As outlined above, a dry cooling system or cooling tower is BTA for minimizing intake impacts from continued operation of Unit 3 because other options, which do not allow removal of the discharge from the Bay, would run afoul of either the requirements to remove the shoreline discharge, or the prohibition against Bay fill.

Yet despite these impacts, this solution, and state and federal legal requirements for permits issued every five years, the Regional Board has failed to determine whether Mirant is entitled to continue to discharge into the Bay and under what conditions it may if it is allowed to do so. It further fails to require the best available technology available now as mandated by federal law, as it now only requires studies to be performed. In doing so, the Regional Board violates State and Federal law and allows the Bay to continue to be harmed by the Potrero once-through cooling system.

**5. The manner in which the petitioner is aggrieved.**

The petitioners are aggrieved by the Regional Board's inaction on the application for renewal of the NPDES permit because Mirant continues to operate the Potrero power plant using once-through cooling technology and cooling water intake system technology approved in 1994 but dating back decades in a manner that adversely affects the Bay. This outdated technology, as described above, impinges and entrains aquatic organisms during cooling water intake, adversely affects bay habitat with near-shore warm-water outflow, discharges or causes the dispersion of toxic laden cooling water and falls short of the best cooling technology available.

Communities for a Better Environment (“CBE”) is an environmental health and justice non-profit organization, promoting clean air, clean water and the development of toxin-free communities. CBE provides grassroots activism, environmental research and legal assistance to underserved urban communities. Its members use the Bay and enjoy its aesthetic beauty as well as its recreational opportunities, including fishing and boating.

Bayview-Hunters Point Community Advocates is a non-profit organization concerned with the health effects of nearby industry on the residents of the Bayview-Hunters Point neighborhood. “Bayview Advocates” works to improve the quality of life in the neighborhood through advocacy, information, community organizing, education and economic development. Its members use the bay, including the shoreline near the Potrero facility, for recreation and other uses, as well as enjoy its aesthetic beauty.

Both of these public interest organizations and their members are adversely affected by the continued operation of the Potrero power plant under its expired permit. They have participated in meetings with the Regional Board Staff in an effort to assure continued protection of the Bay and all public proceedings regarding the proposed Potrero NPDES permit.

**6. The specific action by the state or regional board which petitioner requests.**

The specific action by the State Board or Executive Director that petitioners request is to require the Regional Board to grant or deny NPDES Permit No. CA 0005687 and, if granted, to issue the permit within 120 days. The permit issued should reflect the best cooling technology available taking into account technological developments since the last permit was issued and the environmental hazards caused by the current cooling system in operation, as well as applicable state and federal laws.

**7. A statement of points and authorities in support of legal issues raised in the petition, including citations to documents or the transcript of the regional board hearing where appropriate.**

A statement of points and authorities in support of legal issues raised in the petition is attached as Appendix 1.

**8. A statement that the petition has been sent to the appropriate regional board and to the discharger, if not the petitioner.**

Copies of this petition have been sent to the Regional Board and the discharger, Mirant. See attached proof of service by mail.

**9. A statement that the substantive issues or objections raised in the petition were raised before the regional board, or an explanation of why the petitioner was not required or was unable to raise these substantive issues or objections, before the regional board.**

The substantive issues and objections raised in this petition were raised before the Regional Board in a letter to the Board mailed on December 6, 2005. A copy of that letter is attached as Exhibit A1.

10. Pursuant to 23 CCR 2052(c) Petitioners request a hearing in order to present its documentation and arguments as well as provide any new data and arguments resulting from any subsequent actions by the Regional Board on its new tentative order.

## CONCLUSION

For the foregoing reasons, petitioners respectfully submit that the Regional Board's failure to act on renewal of the NPDES permit for the Potrero power plant was improper, inappropriate, unlawful, and not supported by substantial evidence. Petitioners respectfully request that the State Board grant this petition and review the Regional Board's inaction.

Dated March 2, 2006

Respectfully Submitted,

Environmental Law and Justice Clinic  
Golden Gate University School of Law

By 

JAMES N. MINER  
State Bar Certified Law Student for Petitioners

Approved by

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